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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/009,486	12/13/2001	Friedhelm Eisenbeiss	MERCK 2334	1799

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EXAMINER

OLSEN, KAJ K

ART UNIT

PAPER NUMBER

1753

DATE MAILED: 11/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/009,486

Applicant(s)

EISENBEISS ET AL.

Examiner

Kaj Olsen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

1. The disclosure is objected to because of the following informalities: applicant does not list a separate description of each figure in the Brief Description of Drawings.

Appropriate correction is required.

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2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. In claim 1, step b) is a passive limitation. In particular, the limitation does not clearly set forth what the steps of the process actually are, but rather claim the result of that unspecified process (i.e. having channels not coated with adhesive). What would one possessing ordinary skill in the art reasonably construe as being a process step that would result in the claimed condition? Process claims should explicitly recite the process steps that comprise the claimed invention, and they cannot merely recite the result of those unspecified process steps.

6. In claim 1, step b), "the channel system" lacks antecedent basis.

7. In claim 1, "the glue" lacks antecedent basis.

8. In claim 2, it is unclear how to interpret the passive limitation "is provided in advance with electrodes".

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 4 and 5 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Bentsen et al (USP 6,375,871 B1).

11. Bentsen discloses the presence of a microstructure analytical system comprising two plastic components glued together (col. 6, lines 8-30, col. 9, lines 9-24, and col. 14, lines 13-29). Although Bentsen does not explicitly set forth all the process limitations (however, see the rejections below), the determination of patentability for the claim is based on the product itself. Because the product of the claim is identical to the invention of Bentsen the process from which it was made is the same as or obvious over the process utilized by Bentsen (see *In re Thorpe*, 777 F.2d 695, 698).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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13. Claims 1, 2, 4, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bentsen in view of WO 98/45693 A1 (hereafter "WO '693") with or without the further teaching of WO 98/32535 A1 (hereafter "WO '535").

14. Bentsen discloses a process for making a microstructured analytical system comprising the provision of two plastic components where at least one substrate is microstructured (fig. 11b). One of the components is wetted with adhesive, the components are aligned and then pressed together (col. 9, lines 9-24 and col. 14, lines 13-29). With respect to how the adhesive is to be applied to arrive at the set forth condition, applicant has not set forth any limitations positively reciting how the adhesive is to be applied (see 112 rejection above) and the limitation requiring the channel system not be coated has not been given further due consideration.

Alternatively, Bentsen teaches that the adhesive could be deposited in a "patterned" manner (col. 9, lines 14-24). Although it is not clear whether or not Bentsen explicitly recites what that pattern should be (col. 14, lines 16-20 appears to suggest that the adhesive should not be present where the channels are located), WO '535 teaches that adhesives should be chosen and applied in a manner that prevents clogging of the various microchannels (paragraph bridging pp. 1 and 2). In view of the suggestion of WO '535, it would have been obvious to one of ordinary skill in the art at the time the invention was being made that the patterned adhesive of Bentsen should be placed in a manner that prevents adhesive from coating the channel system of Bentsen in order to prevent clogging of the channels.

15. Bentsen does not explicitly recite a step of curing the adhesive. WO '693 teaches in an alternate microstructured device that the adhesives utilized in the art benefit from a step of curing to finalize the binding (p. 12, lines 7-15). It would have been obvious to one of ordinary skill in

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the art at the time the invention was being made to utilize the teaching of WO '693 for the process or product of Bentsen (with or without WO '535) in order to ensure the utilized adhesive provides maximum adhesion.

16. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bentsen and WO '693 (with or without WO '535) as applied to claim 1 above, and further in view of Harden et al (USP 6,406,583 B1).

17. The references set forth all the limitations of the claim, but did not explicitly recite the use of optical markers for the alignment step. However, the use of optical markers for the assistance in alignment is known in the art. In particular, Harden teaches that optical markers 18 can be placed onto substrates to assist in making sure components are in appropriate alignment (col. 6, lines 33-44). It would have been obvious to one of ordinary skill in the art at the time the invention was being made to utilize the teaching of Harden for the method of Bentsen and WO '693 (with or without WO '535) in order to ensure the assembled components are in alignment. With respect to the use of sputtering for the deposition of the optical marker, sputtering is well known means for depositing metals onto component surfaces.

18. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over either Bentsen alone or, Bentsen and WO '693 (with or without WO '535) in further view of WO 98/09161 A1 (hereafter "WO '161").

19. The reference or references set forth all the limitations of the claim, and Bentsen further disclosed an adhesion layer of chromium oxide (paragraph bridging col. 13 and 14). Bentsen did not explicitly disclose the use of a noble metal for the electrode (Bentsen utilized copper). WO '161 teaches that appropriate choices for electrode materials include a number of inert materials

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including noble metals platinum and gold (p. 6, lines 25-31). It would have been obvious to one of ordinary skill in the art at the time the invention was being made to utilize the teaching of WO '161 for the product of Bentsen (with or without the teachings of WO '693 and WO '535) in order to ensure the electrode materials are appropriately inert.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaj Olsen whose telephone number is (703) 305-0506. The examiner can normally be reached on Monday through Thursday from 7:00 AM-4:30 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Mr. Nam Nguyen, can be reached at (703) 308-3322.

When filing a fax in Group 1700, please indicate in the header "Official" for papers that are to be entered into the file, and "Unofficial" for draft documents and other communications with the PTO that are not for entry into the file of this application. This will expedite processing of your papers. The fax number for regular communications is (703) 305-3599 and the fax number for after-final communications is (703) 305-5408.

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Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist, whose telephone number is (703) 308-0661.

A handwritten signature in black ink, appearing to read 'Kaj K. Olsen', with a long horizontal flourish extending to the right.

Kaj K. Olsen
Patent Examiner
AU 1753
November 12, 2003